

## REMARKS

Claims 1-6 and 18-23 are now pending in the application. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

## SPECIFICATION

The title stands objected to for certain informalities. Applicant has amended the title to address this objection. Therefore, reconsideration and withdrawal of this objection are respectfully requested.

## REJECTION UNDER 35 U.S.C. § 102

Claims 1-6 and 18-23 stand rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,487,531 (Tosaya). This rejection is respectfully traversed.

Applicant's invention relates to speaker authentication. Speech representation for speaker verification, identification, and other categories of speaker authentication is generally expressed using the same kinds of acoustic features as are used in speech representation for speech recognition. These tasks, however, have different requirements. For example, speaker verification needs to discriminate between speakers and ignore differences due to speech content; whereas, speech recognition needs to discriminate speech content and ignore differences between speakers. As a result, much of the information that may be useful in differentiating speakers is thrown away during the speech parameterization process for speaker recognition. Therefore, it

is disadvantageous to express speech for speaker authorization using the same kinds of acoustic features used in speech recognition. Applicant's invention identifies new sets of acoustic measurements aimed at differentiating more subtle aspects of speaker physiology.

On the other hand, Tosaya is concerned primarily with speech recognition. Of note, Tosaya introduces an artificial exciter 46 as a means of enhancing speech recognition. The exciter 46 generates artificial excitations which supplements the natural speech of the speaker. With reference to column 11, Tosaya contemplates that such artificial excitations may be used for user verification. Since artificial excitors are not found in most persons, this approach is not feasible for the general population. By using artificial excitations to differentiate speakers, Tosaya does not contemplate how and arguably teaches away from differentiating speakers based upon natural speech spoken by a user. Thus, Tosaya fails to teach or suggest performing speaker verification based on glottis source parameters extracted from natural speech. Pending claims have been amended to clarify that glottis source parameters are extracted from a user's natural speech. Therefore, it is respectfully submitted that the pending claims define subject matter over Tosaya. Accordingly, Applicant respectfully requests reconsideration and withdrawal of this rejection.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested.

If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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